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THE
NATURAL HISTORY
OF
BRITISH INSECTS;
EXPLAINING THEM
IN THEIR SEVERAL STATES,
WITH THE PERIODS OF THEIR TRANSFORMATIONS,
THEIR FOOD, OECONOMY, &c.
TOGETHER WITH THE
HISTORY OF SUCH MINUTE INSECTS
AS REQUIRE INVESTIGATION BY THE MICROSCOPE.
THE WHOLE ILLUSTRATED BY
COLOURED FIGURES,
DESIGNED AND EXECUTED FROM LIVING SPECIMENS.

By E. DONOVAN.

VOL. X.

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PLATE CCCCL.

PHALÆNA GRAMMICA.

FEATHERED FOOTMAN MOTH.

GENERIC CHARACTER.

Antennæ tapering from the base: wings in general deflected when at rest. Fly by night.

Bombyx.

SPECIFIC CHARACTER

AND

SYNONYMS.

Wings pale yellow: anterior pair yellow striated with black; lower ones with a black terminal band.

PHALÆNA GRAMMICA: alis luteis: primoribus flavis nigro striatis, posterioribus fascia terminali nigra. *Linn. Fn. Suec.* 1134.—*Amoen. acad.* 5. t. 3. f. 31.
Fabr. sp. inf. 2. p. 196. n. 113. *Roef.* 4. t. 21. f. A. D. *Geoffr. inf.* p. 2. p. 115. n. 17. *Schæff. icon.* t. 92. f. 2. *Ray Inf.* p. 169. n. 28. and p. 280. n. 13.



We introduce this elegant species of the Moth tribe among the insects of Great Britain upon the most satisfactory authority, having

OUR

ourselves met with a living specimen of it in the Island of Anglesea some few years ago. This occurred in the day time, in the month of September, under the shade of a little cluster of stones and bushes near Manachty, the northern extremity of the island, and at no great distance from the road to Gwyndy.

It is not entirely new as an English insect, having been described by Ray, but this is the only instance within our recollection, since the time of that writer, in which any naturalist is said to have meet with it in our country. In Germany, and several others parts of Europe it is not very unfrequent.

The specimen discovered by us is of the male sex, and is that represented in the upper part of the annexed plate. The lower figure is of the female kind, which we have ventured to add, though taken from an exotic specimen in order to illustrate the history of this curious insect, the two sexes of which differ so materially that they might readily be mistaken for distinct species.

It rarely occurs to observation in the larva state: by some it is supposed to feed on the ash, while others affirm that its natural food is the plantain. The larva is brown with a white dorsal line, and rufous legs. The pupa ferruginous.



P L A T E C C C V I .

PHALÆNA QUADRA.

SPOTTED FOOTMAN MOTH.

GENERIC CHARACTER.

Antennæ taper from the base. Wings in general deflexed when at rest. Fly by night.

SPECIFIC CHARACTER

AND

S Y N O N Y M S.

Thorax smooth. Wings depressed, yellow, with two dark blue spots on the anterior pair.

PHALÆNA QUADRA: *lævis alis depresso luteis: anticis punctis duobus cyaneis.* *Linn. Syst. Nat. 2. 840. 14.*

—*Fab. Ent. Syst. T. 3. p. 2. p. 24. Sp. 54.*

Schæff. Elem. tab. 98. fig. 5.

Roef. Ins. 1. phal. 2. tab. 17.

The larva of this species rarely occurs, and the winged Insect is not common. Linnæus has taken his specific character of this Moth from the four blue spots on the anterior wings: it is therefore necessary to observe, that the other sex has no such spots, and has erroneously been made a distinct species by the same author, because it was destitute of them.—Found in the winged state in May and June.



PLATE DLVI.

PHALÆNA VERTICALIS.

MOTHER-OF-PEARL MOTH.

LEPIDOPTERA.

GENERIC CHARACTER.

Antennæ taper from the base: wings in general deflected when at rest. Fly by night.

* *Section PYRALIS.*

SPECIFIC CHARACTER

AND

SYNONYMS.

Wings glabrous pale and somewhat fasciated: beneath waved with fuscous.

PHALÆNA VERTICALIS: alis glabris pallidis subfasciatis, subtus fusco undatis. *Linn. Fn. Suec.* 1353.—*Gmel.* 2522. 335.

Phalæna Verticalis. *Fabr. Sp. Inf.* 2. p. 272. n. 180.—*Mant. Inf.* 2. p. 219. n. 285.
Geoffr. Inf. Par. 2. p. 166. n. 112.

Abundant in the month of July, when it appears in the winged state: the larva, which is of a delicate green colour, feeds on the common nettle: the pupa is distinguished by having each of the three last segments armed or furnished with a tooth-like process.



PLATE CCCXXXIX.

PHALÆNA SULPHURALIS.

MARGATE BEAUTY.

GENERIC CHARACTER.

Antennæ taper from the base: wings in general deflected when at rest. Fly by night.

SPECIFIC CHARACTER

AND

SYNONYMS.

First wings yellow, with irregular connected streaks of black spots, and detached marks of the same colour on the anterior margin: second pair brown.

Phalæna Sulphuralis. *Linn. Syst. Nat. 2. 881. 333.*

BOMBYX LUGUBRIS: alis deflexis flavis: rivulis punctisque atris, posticis fuscis. *Fab. Ent. Syst. T. 3. p. 1. p. 467. sp. 188.—Schæff. Icon. tab. 9. fig. 14, 15.*

A scarce insect in this country. It is said to have been first discovered at Margate, and from that circumstance was afterwards known amongst English collectors by the name of *Margate Beauty*.—Another insect, by no means similar, has however received the same name, having been met with at Margate likewise.

FIG

FIG. II.

PHALÆNA PURPURALIS.

PURPLE AND GOLD MOTH.

SPECIFIC CHARACTER

AND

SYNONYMS.

Purple, with two irregular yellow bands continued across both the upper and under wings.

PHALÆNA PURPURALIS: alis purpurascens: omnibus fasciis duabus luteis. *Linn. Syst. Nat. 2. 883. 342.* — *Fn. Sv. 1356.*

Found on nettles in May.



PLATE CCLXXXI.

PHALÆNA FAGANA.

COMMON SILVER-LINE MOTH.

GENERIC CHARACTER.

Antennæ, taper from the base: wings in general deflected when at rest. Fly by night.

SPECIFIC CHARACTER

AND

SYNONYMS.

Anterior wings green, with three oblique white, or silvery stripes across each. Antennæ and feet fulvous.

PYRALIS FAGANA: alis viridibus: strigis tribus obliquis albis, antennis pedibusque fulvis. *Fab. Ent. Syst. 3. p. 2. 243. 5.*

Phalæna Fagaria. *Wien. Werz. 125. 2.*

Roef. Inf. 4. tab. 22.

Petiv. Gazoph. tab. 7. fig. 11.

Ammiral Inf. tab. 2. fig. 1.

Alb. Inf. tab. 31.

Wilks. pap. 1. tab. 1. a. 13.

This species of Phalæna is not uncommon, but deserves particular attention for its singular and very beautiful appearance. The larva is found on the Oak in August and September: in the beginning of

October, it spins a very extraordinary kind of covering on a leaf of the oak, and becomes a pupa within. This covering somewhat resembles a tent, or rather an inverted boat, being shuttle formed, and having a keel, or longitudinal ridge along the upper part: its colour is yellowish brown; the pupa is purple. The Moth appears in the winged state in May.





PLATE CCLXIII.

FIG. I.

PHALÆNA PINETELLA.

PEARL VENEER MOTH.

GENERIC CHARACTER.

Antennæ, taper from the base: wings in general deflected when at rest. Fly by night.

SPECIFIC CHARACTER

AND

SYNONYMS.

First wings yellowish brown, with two large whitish, or pearl-like spots, the anterior one oblong, posterior ovate.

Tinea pinetella: alis anticis flavis: maculis duabus albissimis, anteriore oblonga, posteriora ovata. *Linn. Syst. Nat.* 2. 886. 356.—*Fn. Sv. 1368. Fab. Ent. Syst. T. 3. p. 2. 294.*

Clerk. phal. tab. 4. fig. 7.

Panz. Faun. Germ. 6. tab. 22.

Wien. Werz. 134. 7.

We met with a specimen of this beautiful little Moth, in June 1798, in Norwood. It is certainly a rare and interesting British

species; though long since known to collectors of Insects by the trivial English name above adopted. It may not be improper to add, that this specimen was found in a willow tree, as those continental Authors who have noticed it, say it inhabits pine trees.

F I G. II.

PHALÆNA COLONELLA,

SPECIFIC CHARACTER

AND

SYNONYMS.

First wings oblong, greyish, with two black spots in the middle; a faint undulated bar across the interior, and another near the exterior part of each wing.

TINEA COLONELLA; alis oblongis cinereis; punctis duabus atris ante strigam curvam undulatam obsoletam. *Linn.*
Syst. Nat. 2. 883. 346.—Fn. Sv. 1358.—Fab. Ent.
Syst. T. 3. p. 2. p. 288. 5.

Found on the alder in July.—*Combe wood, Surrey.*



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PLATE CCLXVI.

FIG. I. II.

PHALÆNA LEMNATA.

SMALL WHITE CHINA MARK MOTH,

LEPIDOPTERA.

GENERIC CHARACTER.

Antennæ taper from the base: wings in general deflected when at rest. Fly by night:

SPECIFIC CHARACTER

AND

SYNONYMS.

Antennæ setaceous; wings snowy white: a black streak next the posterior margin of the lower pair, inclosing four white spots.

PHALÆNA LEMNATA: seticornis alis niveis: posticis fascia terminali nigra; punctis quatuor albis. *Linn. Syst. Nat. 2. 374. 278.—Fn. Sv. 1301.—Fab. Ent. Syst. T. 3. p. 2. p. 215. fp. 319.*
Raj. Inf. 205. 102.
Reaum. Inf. 2. tab. 12. fig. 14, 15.

Linnæus and Fabricius describe only the male of this species; the female is rather larger, the colour pale brown, with markings similar

similar to those of the other sex, but of a reddish colour. The characteristic black line, with white spots on the posterior wing, is the same as in the male insect.

This Moth derives its specific name, *Llemnata*, from the food of its Caterpillar, or larva, which is usually some species of *lemná*, (duckweed) or other aquatic plant. In the winged state it is a very common Insect, particularly in marshy ground, and the sides of ponds and ditches. In general we find two broods of them in the summer; the first appears in May, the second in July or August.

F I G. III.

PHALÆNA DECUSSATA.

PRETTY WIDOW MOTH.

GEOMETRA.

SPECIFIC CHARACTER.

Antennæ setaceous: wings cinereous, with four black streaks, the two middle ones flexuous and decussating each other, and little waved lines and specks of black.

PHALÆNA DECUSSATA: seticornis, alis cinereis; strigis quatuor, mediis decussatim flexuosis, lineolis undulatis atomisque nigris.

A rare and curious species. It has been taken at Faversham by Mr. Crewe, and trivially named the Pretty Widow Moth.

F I G.

FIG. IV.

PHALÆNA ATRALIS.

SPECIFIC CHARACTER

AND

SYNONYMS.

Wings black, with two snowy spots on each.

PHALÆNA ATRALIS: alis atris: maculis duabus niveis. *Linn.*
Mant. 540.—*Fab. Syst. Ent.* *T. 3.* *p. 2.* 241. *sp. 422.*

Phalæna funera. *Myll. Zool. Dan.* 132. 1524.

Phalæna guttalalis. *Wien. Verz.* 124. 45.

Phalæna funebris. *Aet. Nidros.* 4. *tab. 16.* *fig. 17.*

Taken in June, on Epping Forest.



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PLATE CCLXVII.

FIG. I. II.

PHALÆNA DEGEERELLA.

LONG-HORNED JAPANNED MOTH.

LEPIDOPTERA.

GENERIC CHARACTER.

Antennæ, taper from the base : wings in general deflected when at rest. Fly by night.

TINEA.

SPECIFIC CHARACTER

AND

SYNONYMS.

Black, glossed with golden : anterior pair with a yellow band : antennæ very long.

PHALÆNA DEGEERELLA : alis atro aureis : fascia flava, antennis longis. *Linn. Syst. Nat. 2. 895. 426.—Fn. Sv. 1393.*

ALUCITA DEGEERELLA. *Fab. Ent. Syst. T. 3. p. 2. p. 341. 40.*

The two sexes of this beautiful and extraordinary little Insect has been described as distinct species. They differ principally in the form and size of the antennæ ; in the female these are entirely setaceous, or like a fine hair, and three times the length of the body : the antennæ in the male are shorter, and thick in the middle, not very unlike those of some kinds of Sphinges. It is not an uncommon insect in hedges in May and June.

E

FIG.

FIG. III. III.

PHALÆNA PODAELLA.

SCARCE JAPANNED MOTH.

LEPIDOPTERA.

TINEA.

SPECIFIC CHARACTER

AND

SYNONYMS.

Antennæ very long: wings golden black. A narrow gilt line of equal breadth across the anterior wings.

PHALÆNA PODELLA: antennis longissimis, alis nigro-æneis, anticus fasciâ equali angusta aurea.

PHALÆNA PODELLA: antennis mediocribus alis nigris fascia albida.
Linn. Syst. Nat. 896. 428.

Alucita Podaella. *Fab. Ent. Syst. 3. p. 2. 341. n. 42.*

Like the preceding species, the two sexes of PHALÆNA PODAELLA are distinguished by the form of the antennæ; and Linnæus has evidently described only the male, or he would not have defined it—"Antennis mediocribus," for the antennæ of the female are remarkably long.

The reference made by Fabricius to *Geoff. Inf.* 2. 194. 32. for this Insect, is certainly erroneous; for the Insect therein described is stated to have a white band across the four wings, a white point near the exterior margin of the upper wings, and a small transverse white mark towards the base. Linnæus does not quote *Geoffroy* for this Insect; and it is evident, Fabricius has confined his reading to the Latin specific description, which certainly agrees with the Linnæan description of *Podaella* in *Syst. Nat.*

The natural size and magnified appearance is shewn at Fig. III. III.



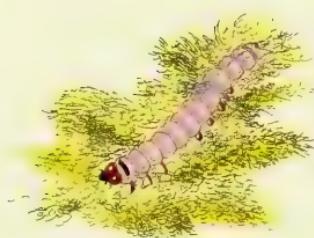


PLATE CCLXXXIII.

PHALÆNA MELONELLA.

HONEY MOTH.

GENERIC CHARACTER.

Antennæ taper towards the apex: wings in general deflected when at rest. Fly by night.

TINEA:

SPECIFIC CHARACTER

AND

SYNONYMS.

Anterior wings grey, behind purple with a white streak: scutell black, with the tip white.

P. TINEA MELLONELLA: alis canis posticis purpurascentibus: striga alba, scutello nigro apice candido. *Linn. Syst. Nat. 2. 888. 375.—Fn. Sv. 1383.—Fab. Ent. Syst. 2. p. 2. 305. Sp. 79.*
Reaum. Inf. 3. tab. 19. fig. 79.

The larva of this species is sometimes found in bee-hives: it insinuates itself amongst the cells of those Insects, and subsists on the honey. It remains in the pupa state in a long cylindrical channel or passage it forms in the larva state: the winged Insect comes forth in August.





PLATE CCCLXIII.

FIG. I.

PHALÆNA POTAMOGATA.

CINEROUS CHINA MARK MOTH.

LEPIDOPTERA.

GENERIC CHARACTER.

Antennæ tapering from the base : wings in general deflected when at rest. Fly by night.

* GEOMETRA.

SPECIFIC CHARACTER.

AND

SYNONYMS.

Wings cinereous, with white spots : anterior pair obsoletely reticulated.

PHALÆNA POTAMOGATA : *feticornis alis cinereis albo maculatis : anticis obsolete reticulatis.* *Linn. Syst. Nat. 2, 873. 275.—Fn. Suec. 1299.*
Fabr. Ent. Syst. T. 3. p. 2. p. 213. fp. 313.

The larva of this species is supposed to feed principally on the *Potamogaton natans* from which circumstance it has been called specifically Potamogata. It appears early in the month of June in the

winged state hovering about aquatic plants in ditches, and other watery places. This is a very common species, and is frequently found drowned, and lying on the surface of the water where aquatic plants are abundant.

F I G. II.

PHALÆNA STAGNATA.

PEARL CHINA MARK.

SPECIFIC CHARACTER.

PHALÆNA STAGNATA: wings white, with two irregular common subfuscous bands; the outer one furcating from the middle of the anterior wings to the costal margin.

The general colour of this insect is a beautiful delicate white, with a perlaceous hue. The transverse fuscous bands are so disposed on the anterior wings as to give it somewhat of a reticulated appearance, but less so than in *Phalæna Potamogata*, and several other species of *China-marks*, as English collectors denominate them. The bands on the posterior wings are not in any manner reticulated. This does not appear to be a very common species.



by Fabricius, in honour of Schæffer, Author of the *Insecta Ratibonensia*, and *Fundamenta Entomologica*. *Quarto.* 1747.

The natural size of this Insect is given at the bottom of the Plate; and as it was too minute to admit of the elegant colouring of the original, two figures of its magnified appearance is given above, one in its resting position, the other with the Wings expanded.



PLATE IX.

PHALÆNA PADELLA.

SMALL ERMINE MOTH.

LEPIDOPTERA.

GENERIC CHARACTER.

Antennæ taper from the base. Wings in general deflected when at rest.

SPECIFIC CHARACTER.

First wings lead colour, with about twenty black dots: second ones brown.

PHALÆNA (*Tinea*) PADELLA: alis primoribus lividis: punctis 20 nigris posterioribus fuscis. *Linn. Fn. Suec.* 1364.
—*Gmel. Linn. Syst. Nat.* 2586. *Sp.* 351.

Phalæna Padella feeds on the white-thorn, black-thorn, and on fruit trees. In May the caterpillars are hatched, and as they live in societies of hundreds, or even thousands, by their united industry they spin a web spacious enough to contain the family, and therein they assume their several forms; early in June they become chrysalides, and in about fourteen days after that change the moths appear.

The caterpillars of the *Phalæna Padella* and *Evonymella* are almost ever found in the same society, and many circumstances have been advanced

PLATE IX.

advanced to prove them either varieties of each other, or different sexes of the same species. Linnæus considered them as distinct kinds. They differ in colour in the larva state, that of one being a light yellow brown, and of the other dark brown inclining to black. The superior wings of *Evonymella* are less of a lead colour than those of *T. Padella*, and are marked with a greater number of black dots; the latter, according to Linnæus, should have only twenty of these dots on the wings, the other fifty; but this character is liable to some little variation, as we have frequently had an opportunity of observing, in specimens of both insects. *Phalæna (Tinea) Evonymella* is given in another part of the work.



PLATE CCCXVIII.

PHALÆNA DIDACTYLUS.

BIFID-WING PLUME MOTH.

GENERIC CHARACTER.

Antennæ taper from the base. Wings in general deflexed when at rest. Fly by night.

* *Alucita. Linn.*

SPECIFIC CHARACTER

AND

SYNONYMS.

Wings divided into plumes, brown, barred with white: anterior wings consisting of two feathers, posterior pair of three.

PHALÆNA DIDACTYLUS : alis fisis fuscus : strigis albis anticis bifidis, posticis tripartitis. *Lynn. Syst. Nat. 2. 899.*
454.—Fn. Sv. 1453.

Pterophorus Dida^ctylus. *Fab. Ent. Syst. T. 3. p. 2. p. 345. sp. 200.*

Geoff. Inf. 2. 92. 2.

Wien. Verz. 145. 2.

Schæff. Icon. tab. 93. fig. 7.

Elem. tab. 104.

The larva of this very singular creature is said to feed on the *Convolvulus arvensis*, and *Geum rivale*. We have considered it as one of the scarcest species of the Plume-Moths found in this country: our specimen was taken in Epping Forest, in June. It is a most beautiful object for the microscope.



PLATE CX.

PHALÆNA PENTADACTYLA.

WHITE FEATHERED MOTH.

LEPIDOPTERA.

GENERIC CHARACTER.

Antennæ taper from the base. Wings in general contracted when at rest. Fly by night.

* 7 * ALUCITÆ.

SPECIFIC CHARACTER.

Every part snow white, except the eyes, which are black, anterior wings bifid, posterior tripartite.

PHALÆNA PENTADACTYLA *Alucita alis* patentibus fissis quinque partitis niveis, digito quinto distincto. *Lin.*
Syst. Nat. 2. 542. 304. *edit.* 10.

P. *Pentadactylus*, *alis* niveis, *anticis* bifidis, *posticis* tripartitis.
Syst. Ent. 672. 6—*Fab. Spec. Inf.*
Geoff. Inf. 2. 91. 1.
Reaum. Inf. 1. *tab.* 20. *fig.* 1. 2.
Roef. Inf. 1. *phal.* 4. *tab.* 5.
Ammir. Inf. *tab.* 23.
Sulz. Inf. *tab.* 16. *fig.* 10.
Petiv. Gazoph. *tab.* 67. *fig.* 6.

The Caterpillar of this singular Insect is very common in May; it is of a green colour, with a white stripe down the back, and one on each side; it casts its skin several times.

We have observed some Caterpillars which were quite smooth, after casting their skin become rough or covered with hairs; and others which

were white become black by the same process; in this caterpillar we have observed a similar change: a specimen which was of a plain green as before described, became suddenly spotted with black as shewn in our plate, that skin being cast off it assumed its former appearance and became a pupa.

It feeds on grass, nettles, &c. near the sides of ditches, and is found sporting in the evening, when in the fly state among the grass and herbage.

The Caterpillar becomes a Pupa about the beginning of June.—It affixes itself by the tail to a stalk of grass in the same manner as those of the Butterfly genus, and like them is often found with the head suspended downwards; it can by a sudden spring turn itself upright again.

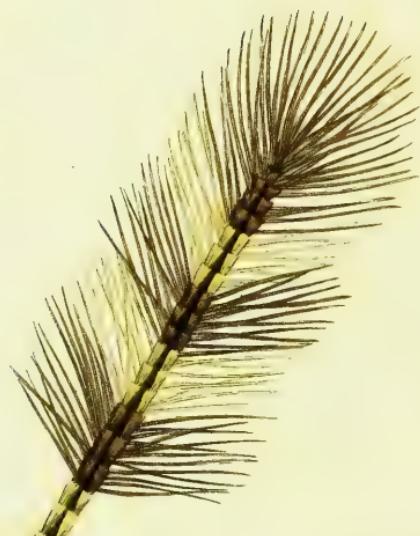
In a little book entitled the AURELIAN'S POCKET COMPANION, by Moses Harris, we find this species described, and called the *White Plumed*, but the Linnæan specified Name *Didaëtyla* is added:—And under the Linnæan name *Pentadaëtyla* (our present specimen) he has described the *Brown plumed**.—The same confusion is extended to his folio work the AURELIAN. In Plate 1. he has figured the White plumed under the specific name *Didaëtyla*, and in Plate 30, the Brown plume, under *Pentadaëtyla*. Linnæus has comprised all those Lepidopterous Insects whose wings appear to consist of several distinct feathers, connected only at the shafts, under the subdivision *Aluctæ*, but Fabricius has given them the new name *PTEROPHORUS*, and added the name *Alucitæ* to a small division of the *Tinea*, as *Phal. Christylostella*, &c. of *Linn.*

The *Phal. Pentadaëtyla* appears in the perfect state about the latter end of June, sometimes earlier.

* Another specimen of the same division of the genus (*Aluctæ*) but of a brown colour “*Alis fisis fuscis, &c.*” *Linn.*



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P L A T E CXXXVI.

P H A L A E N A H E X A D A C T Y L A.

MANY-FEATHERED MOTH.

LEPIDOPTERA.

GENERIC CHARACTER.

Antennæ taper from the base. Wings in general deflexed when at rest. Fly by night.

* PTEROPHORUS.

SPECIFIC CHARACTER.

Wings divided into Feathers, yellowish and grey, with brown Spots.

Phalæna Hexadactyla, *Linn. Syst. Nat.*

PHALÆNA HEXADACTYLUS, alis fisis cinereis, singulis sexpartitis.

Fab. Spec. Inf. 2. 312. 7.—*Syst. Ent.*

672. 7.

Reaum. Inf. I. tab. 19.—*Fig. 19. 21.*

Frisch. Inf. 7. tab. 73.

Among an almost endless variety of species, which the tribes of Insects present, few have a more singular appearance than the little creature we have selected for our present subject. It is perhaps one of the most curious pieces of natural mechanism (if we may be allowed the expression) that can be conceived, for of a most complicated fabric which the wings appear, every part, though separate,

* *Fabricius.*

acts in perfect unison with the rest; in most winged Insects we find the tendons of each wing united by strong membranaceous webs, which prevent any one from acting without the others, but in this every tendon must perform a distinct part, and yet perfectly in conformity with the rest to assist the Insect in its flight. When the Insect rests the feathers fold over one another; but when it flies, they are thrown open, and resemble a full expanded fan.

The natural size of this singular creature is given at Fig. 1. and as a more correct figure than can be shewn in such a small compass was thought necessary, its magnified appearance is represented at Fig. 2.

The plumes of this Insect differs so much from those of other Moths, that we have also added, at Fig. 3, the appearance of the upper part of one, as seen by a very deep lens of the Microscope; by this the stem or quil is observed covered with scales of the form usually found on other Moths, but the sides are finely feathered with long hairs, in tufts, alternately of a light and dark colour, and which, owing to the minuteness of the Insect appear like patches of an uniform colour, before it is examined with the Microscope.

This Insect is not uncommon in Summer, it flies about hedges in the evening.

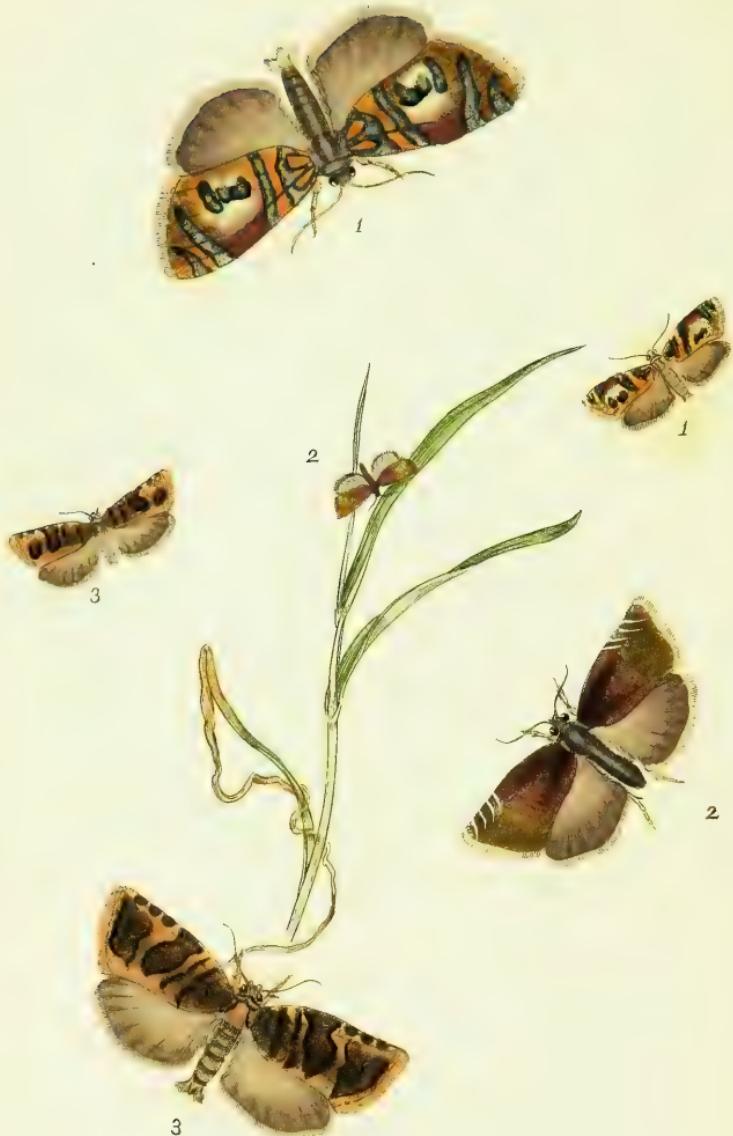


PLATE CCCLXIV.

FIG. I. I.

PHALÆNA ARCUANA.

CURVE-BANDED TORTRIX-MOTH.

LEPIDOPTERA.

GENERIC CHARACTER.

Antennæ gradually tapering from the base to the tip: wings in general deflected when at rest. Fly by night.

* TORTRIX.

SPECIFIC CHARACTER

AND

SYNONYMS.

Wings yellowish-brown, with three silvery curved bands; and a black spot in the disk, on which are three silvery dots.

TORTRIX ARCUANA: alis luteis: fasciis tribus arcuatis maculaque discei atra; punctis tribus argenteis. *Linn. Syst. Nat. 2. 877. 296. Fn. Sv. 1317.*

PHALENA ARCUANA. *Fabr. Sp. Inf. 2. p. 281. n. 31. Mant. Inf. 2. p. 230. n. 53.—Ent. Syst. T. 3, p. 2. p. 260. n. 72.*

Clerk-Phal. tab. 10. fig. 2.

C 2

Phalena

Phalena arcuana is an insect of uncommon beauty. The general colour of the anterior wings is yellowish brown, or testaceous, varied with darker towards the exterior margin, and transversely striped with silvery: there are also at the base two remarkable arched, or incurvated silvery lines. In the disk, a little inclining towards the inner margin, is a broad space, of a pale yellow colour, in the center of which is a black spot, enriched with three silvery dots. The lower wings are obscure.

This insect is found on the nut tree in its perfect state: its transformations are not clearly known.

F I G. II. II.

PHALÆNA DIMIDIANA,

BROWN AND ORANGE WING TORTRIX-MOTH.

SPECIFIC CHARACTER.

TORTRIX DIMIDIANA: anterior half of the first wings fuscous, posterior testaceous-orange, with four short silvery lines on the exterior margin.

This little moth, which we are inclined to consider as an undescribed species, is little more than one third the size of the preceding insect. The fuscous, and rich testaceous-orange of the anterior wings, appear perfectly distinct and independent of each other at the base and apex of the wing, but unite and blend together about the middle, or a little inclining towards the posterior end: the whole surface has a slightly gilded, or metallic gloss.

FIG.

FIG. III. III.

PHALÆNA NEBULANA.

BLACK-CLOUDED TORTRIX-MOTH.

SPECIFIC CHARACTER.

TORTRIX NEBULANA: anterior wings sub-testaceous, and varied: the clouds in the disk, and marginal spots, deep fuscous.

Taken in Darent Wood, Dartford, in July. This is a new species.



PLATE CCCLXIX.

FIG. I. I.

PHALÆNA TRIMACULANA.

THREE-SPOT TORTRIX-MOTH.

LEPIDOPTERA.

GENERIC CHARACTER.

Antennæ gradually tapering from the base to the tip: wings in general deflected when at rest. Fly by night.

* TORTRIX.

SPECIFIC CHARACTER.

TORTRIX TRIMACULANA: anterior wings testaceous and fuscous varied: a pale angular transverse band near the base; and whitish space, inclosing three small dark dots behind.



A pretty species, and moderately large. The ground colour chiefly testaceous, varying from pale to darker in different specimens. The broad transverse angular band, and spot inclosing three small dots behind, are sufficiently characteristic of this insect. It has also several slender whitish lines, disposed obliquely at the outer edge of the wing, and at the apex a small subocellated spot. We have not observed any description either of this, or the third species represented in our plate 369, in any work, the second species appears in Hubner's *Beiträge zur Geschichte der Schmetterlinge, &c.*

FIG. II. II.

PHALÆNA BETULANA.

ALDER TORTRIX-MOTH.

SPECIFIC CHARACTER.

TORTRIX BETULANA : anterior wings ochraceous, with an oblique, subfuscous band across the middle, and two black dots : one central and touching the band.

PHALÆNA BETULANA. *Hubn. Beitr.*

This is one of the larger species of the Tortrix tribe ; the colour ochraceous, sometimes livid, at others tinged with reddish, and glossy. It may be readily distinguished by the oblique dark band across the middle of the wing, to which one of the black spots is connected ; the other dot is smaller, and placed nearer the posterior end of the wing. There is also a ferruginous dash contiguous, that extends to the outer margin of the wing.

FIG

FIG. III. III.

PHALÆNA NOTANA.

DOTTED TORTRIX-MOTH.

SPECIFIC CHARACTER.

TORTRIX NOTANA: anterior wings subferruginous, with numerous distinct black dots.

Taken in Darent Wood, Dartford, in July, and also in Coombe Wood, Surrey.



P L A T E CCCLXX.

F I G. I. I.

P H A L A E N A G E M I N A N A.

DOUBLE-DOT TORTRIX MOTH.

GENERIC CHARACTER.

Antennæ gradually tapering from the base to the tip: wings in general deflected when at rest. Fly by night.

* TORTRIX.

SPECIFIC CHARACTER.

TORTRIX GEMINANA. Anterior wings pale with a broad fuscous stripe along the middle, edged interiorly with a jagged whitish line: a small testaceous spot, with two black dots near the anal angle.

The prevailing colour of the upper wings in this species, when the insect is in perfect condition, is of milky yellowish, varied with testaceous. Besides the broad fuscous longitudinal shade, and testaceous double dotted spot behind, as mentioned in the specific character, there are a variety of elegant markings and lineations of testaceous brown and black at the apex and along the outer edge. We suspect that it is an uncommon insect, having hitherto only met with it once: —this was taken in Kent.

FIG.

F I G. II. II.

PHALÆNA TRIFASCIANA.

THREE BANDED TORTRIX MOTH.

SPECIFIC CHARACTER.

Wings whitish, with three brown bands margined with black dots.

TORTRIX TRIFASCIANA: alis albis: fasciis tribus fuscis; tertia nigro. punctata. *Fabr. Ent. Syst. T. 3. p. 2. p. 248. sp. 25.*

There can scarcely remain the slightest doubt of this being the species of Tortrix described by Fabricius from the cabinet of Dr. Allioni, under the name of trifasciana, presuming however that the insect Fabricius saw, must have been in less perfect condition than our specimen: he describes the situation of the three bands very exactly, one at the base of the wing, the second oblique across the middle, and the third at the tip, the last of which he observes are dotted with black. To this we may add, that when perfect, all the bands are circumscribed within a double series of black dots, although those on the brown stripe at the tip are commonly most conspicuous. Taken in Coombe Wood, Surrey.



PLATE CCCLXXI.

FIG. I. I.

PHALÆNA V-ALBANA.

WHITE-V TUFTED TORTRIX-MOTH.

LEPIDOPTERA.

GENERIC CHARACTER.

Antennæ gradually tapering from the base to the tip: wings in general deflected when at rest. Fly by night

* TORTRIX.

SPECIFIC CHARACTER.

Anterior wings brownish, variegated with pale rivoise lines and tufted dots, and a white flexuous V-like mark at the costal margin.

TORTRIX V-ALBANA. *Marsh. M.S. Ent. Brit.*

This is a charming little species, and very far from common. The ground colour of the anterior wings is pale fuscous, and the rivoise lines that variegate it whitish, with a tinge of testaceous brown, or reddish disposed chiefly in dots along the middle. But the most conspicuous mark, and by means of which this species of tufted tortrix may be easily known, is the white costal flexuous band in this middle of the anterior wing which bears a strong resemblance to the letter V. The posterior wings are pale with numerous short dashes, or interrupted transverse darker lines.

FIG.

FIG. II. II.

PHALÆNA BILITURANA.

DOUBLE-BANDED TORTRIX-MOTH.

SPECIFIC CHARACTER.

Anterior wings cinereous brown, with a fuscous band across the middle, and another subterminal at the posterior end.

TORTRIX FASCIANA. *Fabr. Ent. Syst. T. 3. p. 2. p. 261. n. 782?*



This insect approaches very nearly to *Phalæna fasciana* of Fabricius: it is also allied to *Phalæna Gerningana* of the same author, and it is not unlikely, on future investigation, they may both prove to be accidental varieties of the same species as our insect. The upper wings in our specimen is of a cinereous brown colour inclining to reddish, and marked with many short transverse lines. Across the middle is a broad band, and at the tip another smaller one, with a flexuous edge, leaving a pale narrow spot in the middle of the posterior apex next the margin.

Taken in Kent near Faversham.

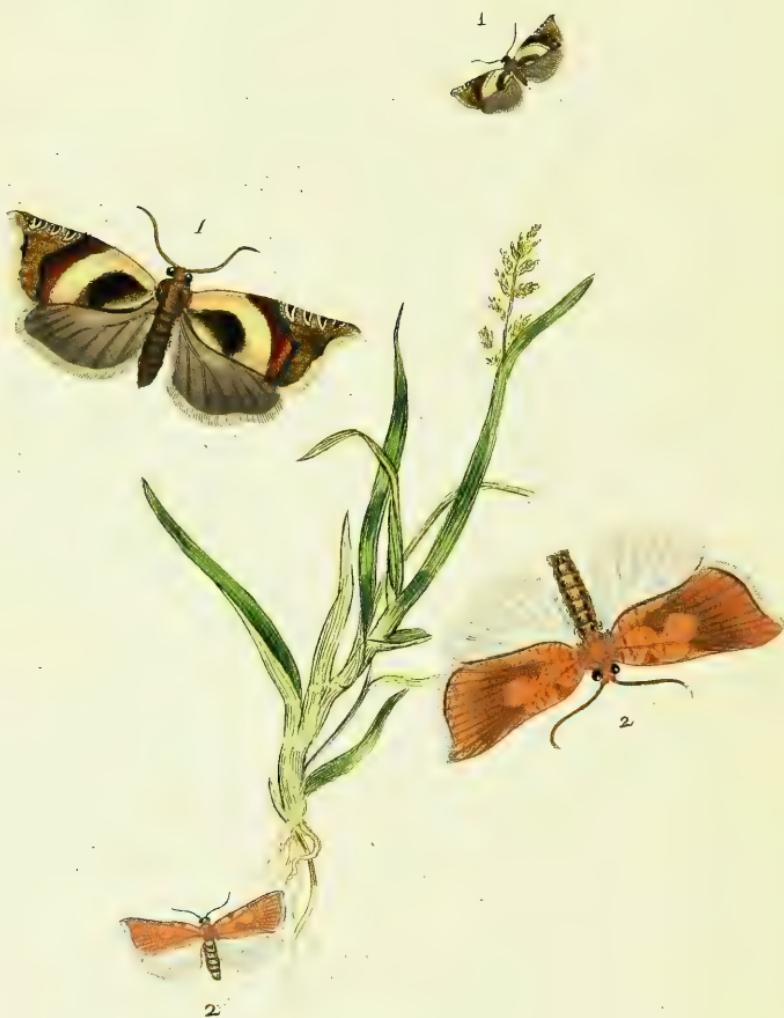


PLATE CCCLXXIV.

FIG. I.

PHALÆNA LUNDANA.

ARCUATED TORTRIX-MOTH.

LEPIDOPTERA.

GENERIC CHARACTER.

Antennæ gradually tapering from the base to the tip: wings in general deflected when at rest. Fly by night.

* TORTRIX.

SPECIFIC CHARACTER

AND

SYNONYMS.

Wings at the base fuscous, with a pale semicircular stripe: tip glossed with gold, and streaked at the thicker margin with silvery, and yellow.

PHALÆNA LUNDANA: alis basi fuscis: linea semicirculari pallida, apice auratis: margine crassiori argenteo flavoque strigato. *Fabr. Spec. Inf.* 2. p. 287. n. 74.—*Ent. Syst. T. 3. p. 2. 282. fp. 166.*

PHALÆNA BADIANA. *Wien. Verz.* 136. 8.



This is an elegant, though small species, which we have found during the summer not uncommonly in the woods near the vicinity of London. The smallest figure 1. denotes the natural size.

FIG. II.

PHALÆNA OBSCURANA.

FERRUGINOUS CLOUDED TORTRIX MOTH.

SPECIFIC CHARACTER.

TORTRIX OBSCURANA. Anterior wings somewhat ferruginous, obscurely clouded and speckled with fuscous: posterior wings pale.

This appears to be an undescribed species: it is represented both in its natural size, and magnified, in the opposite plate.

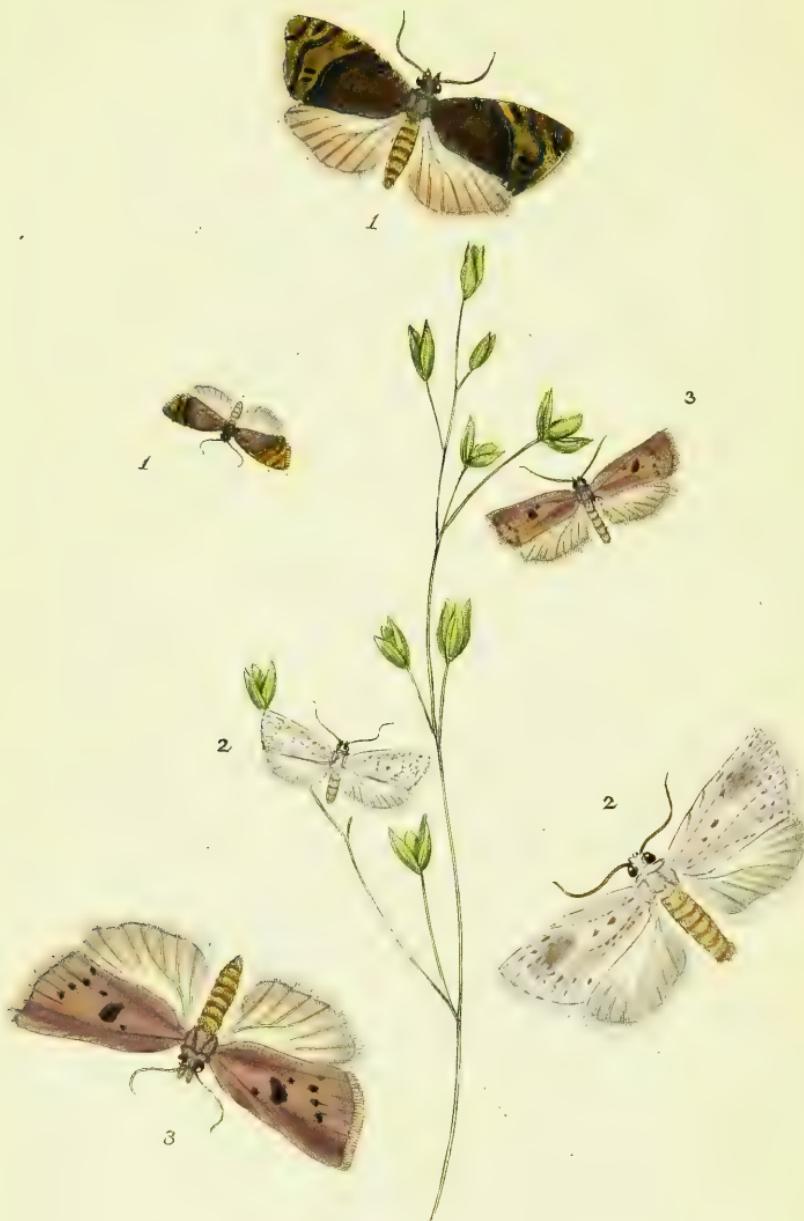


PLATE CCCLXXVII.

PHALÆNA RHEDIELLA.

RHEDI'S TINEA-MOTH.

GENERIC CHARACTER.

Antennæ gradually tapering from the base to the tip: wings in general deflected when at rest. Fly by night.

* TINEA.

SPECIFIC CHARACTER

AND

SYNONYMS.

Wings black: tip fulvous, with interrupted silver streaks.

PHALÆNA RHEDIELLA: alis nigris apice fulvis: strigis interruptis argenteis. *Linn. Syst. Nat.* 2. 444.—*Fn. Suec.* 1405.—*Fabr. Ent. Syst. T.* 3. p. 2. 324. 161.

Clerk Ic. t. 12. f. 12.



This is a pretty, and by no means uncommon insect in England. Linnæus named it specifically Rhediella, in compliment to Rhedi, the author of several well known tracts on Natural History, that appeared about the end of the seventeenth century. The insect is figured in Clerk's *Icon.* a work executed under the immediate direction of Linnæus.

FIG. II.

PHALÆNA ALBIDANA.

BROWN-DOTTED PALE TORTRIX-MOTH.

* TORTRIX.

SPECIFIC CHARACTER.

TORTRIX ALBIDANA. Whitish: anterior wings with a double oblique transverse series of brown dots towards the posterior end; an obscure costal spot near the middle.

This delicate little Insect was taken in Coombe Wood, Surrey, and at Godston in the same county. It is a tortrix of interesting figure, though pale in colour. The wings are whitish: anterior pair faintly tinged with brown, and in addition to the double series of brown dots towards the posterior end of the wings, as mentioned in the specific character, there are some other minute dots of the same colour sparingly sprinkled over the rest of the anterior wings, and in particular two more distinct than the others appear in the disk, a little inclining towards the base of the wing.

Not having observed the description of this insect in the work of any author, we shall venture to admit it as a new species.

FIG.

F I G. III.

PHALÆNA PROFANANA.

BROWN-TUFTED TORTRIX-MOTH.

SPECIFIC CHARACTER.

Wings fuscous grey, with a dark tufted dot in the middle.

TORTRIX PROFANANA: alis cinereis: puncto medio fusco. *Fabr.*
Ent. Syst. T. 3. p. 2. 268. sp. 111.

A new species, described by Fabricius as a native of this country, from a specimen in the cabinet of Mr. Francillon. Our insect, which was taken in Kent, is of the same species precisely, but only of a darker colour. Besides the conspicuous elevated hairy tuft in the middle of the wing, there are several minute elevated dots in the disk contiguous to it, as Fabricius mentions. The anterior wings have a rich silky gloss, the lower ones are brownish, and immaculate.

This, we believe, to be one of the rarest British species of that particular family of *Tortrices* known among English collectors by the denomination of *Button-wing moths*, a term alluding to the small fasciculi, tufts, or scabrous elevations, which appear on the anterior wings of some few species of the Tortrix tribe of Phalæna. It is also an insect of no very inconsiderable magnitude, as will appear from the smaller figure shewn at number 3 in the opposite plate, which represents it in the natural size.



PLATE CCCLXXX.

FIG. I. I.

PHALÆNA SUBOCELLANA.

SUB-OCELLATED TORTRIX-MOTH.

LEPIDOPTERA.

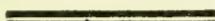
GENERIC CHARACTER.

Antennæ gradually tapering from the base to the tip : wings in general deflected when at rest. Fly by night.

* TORTRIX.

SPECIFIC CHARACTER.

TORTRIX SUBOCELLANA. Anterior wings white, with short oblique black lines at the exterior margin : base, and dusky spot near the tip, dotted with black ; a terminal gilt orange streak next the posterior margin.



Specimens of this insect have occurred to our observation, in which the black dots at the base of the anterior wings are so intimately connected as to appear like interrupted transverse lineations. The ground colour is white : sometimes yellowish ; and most exquisitely mottled, and dotted with black and dusky spots, leaving the center of the disk immaculate. The posterior wings are pale.

This was taken in Kent, in the month of July. The smallest figure denotes the natural size.

FIG. II. II.

PHALÆNA MINISTRANA.

TESTACEOUS TORTRIX-MOTH.

SPECIFIC CHARACTER

AND

SYNONYMS.

Anterior wings testaceous, with posterior rufous margin; in the middle a ferruginous daub, and small white line.

TORTRIX MINISTRANA : alis anticis testaceis : margine postico rufo, medio litura ferruginea : lineola alba. *Linn. Syst. Nat. 2. 877. 300.—Fn. Suec. 1131. Gmel. Linn. Syst. Nat. 2505. n. 300.*

PHALÆNA MINISTRANA. *Fabr. Sp. Inf. 2. p. 279. n. 20.*

Mant. Inf. 2. p. 227. n. 31.

Ent. Syst. T. 3. p. 2. 252. n. 42.



Phalaena Ministrana is rather an abundant insect in this country, for the most part frequenting gardens. It is mentioned as a very common species in Germany and Sweden, and most probably is so likewise throughout the rest of Europe.

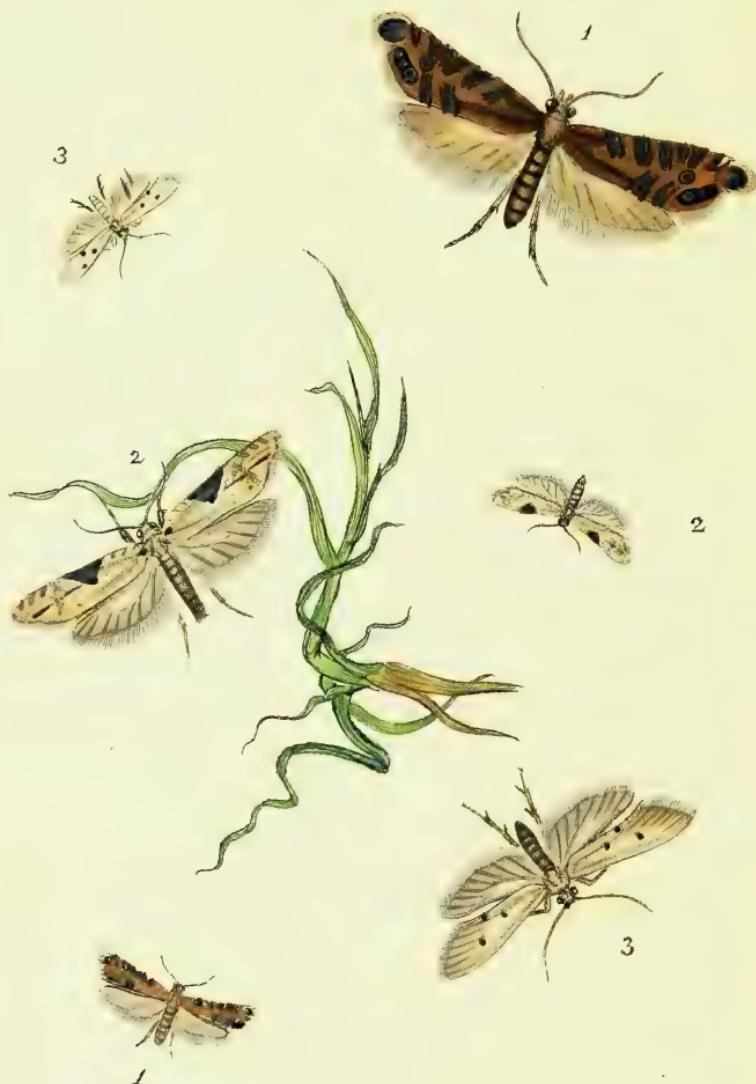


PLATE CCCLXXXII.

FIG. I. I.

PHALÆNA TRIGUTTELLA.

TRIPLE SILVER-DOT TINEA-MOTH.

LEPIDOPTERA.

GENERIC CHARACTER.

Antennæ tapering from the base, wings in general deflected when at rest. Fly by night.

* TINEA.

SPECIFIC CHARACTER.

PHALÆNA TRIGUTTELLA. Anterior wings brown, with oblique marginal silvery streaks: at the posterior tip a black line, enclosing three silvery dots.

This we have taken, not very uncommonly, in woods, about the month of July.

FIG. II. II.

PHALÆNA HUBNERELLA.

HUBNER'S TINEA MOTH.

SPECIFIC CHARACTER.

TINEA HUBNERELLA. Anterior wings sublanceolate, pale, with a costal triangular fuscous spot.

Taken

Taken in the vicinity of Faversham, Kent. Not described, to our knowledge, by any author.

FIG. III. III.

PHALÆNA TRIPUNCTELLA.

THREE-SPOT TINEA MOTH.

SPECIFIC CHARACTER

AND

SYNONYMS.

Wings cinereous, with three fuscous dots in the disk.

TINEA TRIPUNCTELLA: alis cinereis; punctis tribus fuscis. *Fabr. Ent. Syst. T. 3. p. 2. p. 312. fp. 114.*

TINEA TRIPUNCTELLA. *Wien Verz. App.*

Described by Fabricius from a specimen in the cabinet of Schiefermyller as an inhabitant of Austria. Our specimen is from Faversham, Kent.

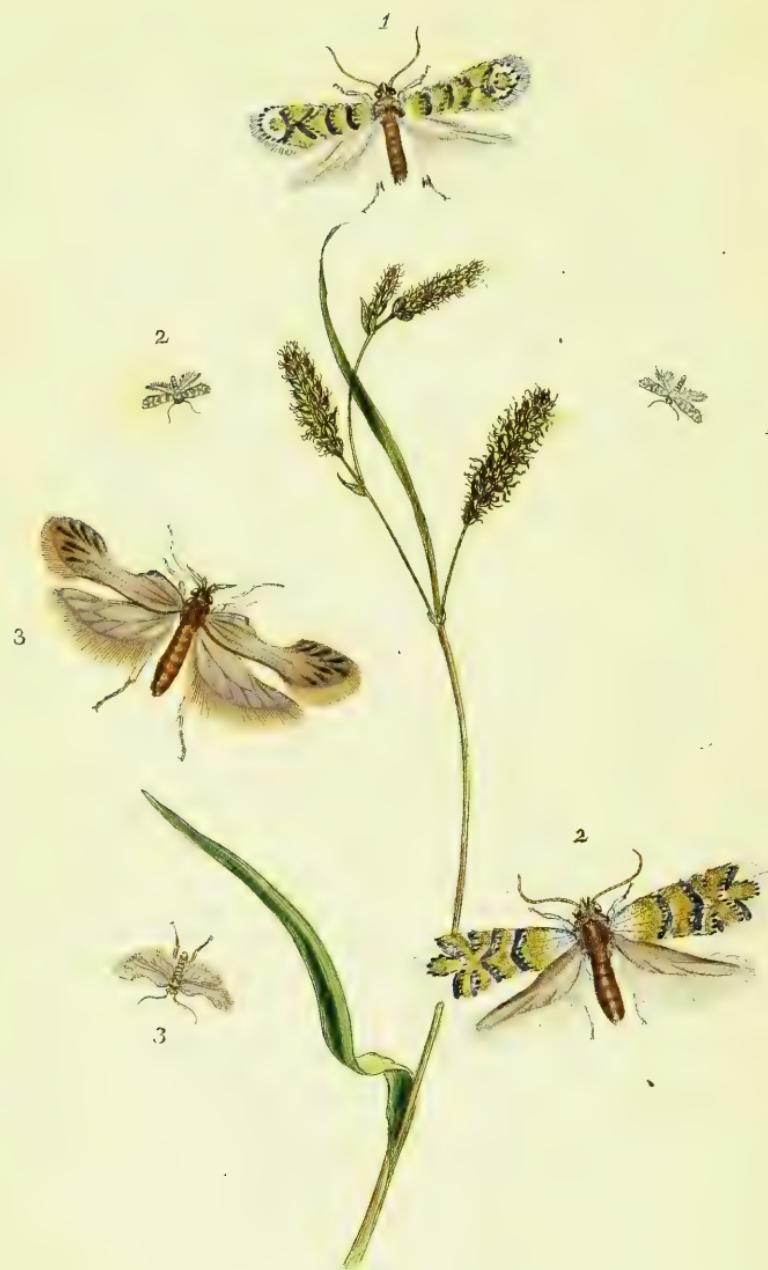


PLATE CCCXCH.

FIG. I. I.

PHALÆNA CRAMERELLA.

CRAMER'S TINEA-MOTH.

LEPIDOPTERA.

GENERIC CHARACTER.

Antennæ tapering gradually from the base: wings in general deflected when at rest. Fly by night.

* TINEA.

SPECIFIC CHARACTER

AND

SYNONYMS.

Wings silvery, with three transverse, brownish, golden bands; and a black subocellated dot at the tip.

TINEA CRAMERELLA: alis argenteis: lineolis obliquis marginalibus fasciis punctoque apicis atro. *Fabr. Ent. Syl. T. 3.* p. 2. p. 327. sp. 173.



This we have every reason to believe must be the insect intended by Fabricius for his species Cramerella, allowing that his description was taken from a wasted specimen, in which the transverse bands across the wings appeared less distinct than in the insect we have figured. He speaks

of it as a minute species, and as an inhabitant of England. We have frequently taken it on ferns, and low herbage at the skirts of woods.

FIG. II. II.

PHALÆNA BLANCARDELLA.

BLANCARD'S TINEA MOTH.

SPECIFIC CHARACTER

AND

SYNONYMS.

Wings golden, with a silvery space at the tip, and seven marginal spots.

TINEA BLANCARDELLA : alis auratis: lineola apicis maculisque septem marginalibus argenteis. *Fabr. Ent. Syft. T. 3. p. 2. p. 327. fp. 175.*

Described by Fabricius as an English insect, from the cabinet of Yeats. This has the same haunts as the preceding, and is equally common.

FIG. III. III.

PHALÆNA EMARGINELLA.

CINEREOUS NOTCH-WING TINEA.

SPECIFIC CHARACTER.

TINEA EMARGINELLA. Anterior wings linear, and deeply emarginated at the outer edge: greyish: apex streaked with fuscous.

This

This species is found in Kent; it is very rare, and apparently undescribed by any author. There are several species of the Tortrix family that have the outer edge of the anterior wings emarginate, and are known among English collectors by the trivial epithet of Notch-wing Moths, but we do not recollect to have observed the same circumstance in any of the Tinea tribe before: some few of the smaller species have the edges of the wings jagged, or indented, but not exactly in this manner.



PLATE CCCCLII.

PHALÆNA FASCIELLA.

BANDED TINEA MOTH.

LEPIDOPTERA.

GENERIC CHARACTER.

Antennæ tapering from the base: wings in general deflected when at rest. Fly by night.

Tinea.

SPECIFIC CHARACTER.

PHALÆNA FASCIELLA. Buff, with a broad greyish figured band across the middle: tip greyish.



An insect of small size, but extremely elegant, and singular in its appearance. We met with the specimen on the side of Dinas Brân Hill, in the Vale of Llangollen, North Wales, in the month of August, 1802.

This pretty acquisition is represented both in its natural size and magnified.



PLATE CCCCLIX.

PHALÆNA BIMACULANA.

BIMACULATED TORTRIX MOTH.

LEPIDOPTERA.

GENERIC CHARACTER.

Antennæ tapering from the base: wings in general deflected when at rest. Fly by night.

Tortrix

SPECIFIC CHARACTER.

PHALÆNA BIMACULANA. Wings deep grey varied with transverse fuscous and testaceous bands: two large sub-triangular whitish spots on the interior margin.

An elegant and curious moth of the Tortrix family found near Faversham in Kent. The species is not apparently described by any author, and the present is the only specimen of its kind we recollect to have seen.

The smallest figure represents the natural size.



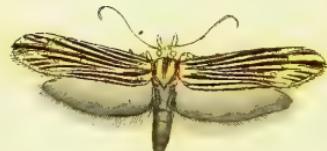
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PLATE LXXVII.

FIG. I. and FIG. II.

PHALÆNA CRISTALANA.

DARK-BUTTON MoTH.

LEPIDOPTERA.

GENERIC CHARACTER.

Antennæ taper from the base. Wings, in general contracted when at rest. Fly by night.

TORTRIX.

SPECIFIC CHARACTER.

Upper wings yellow-brown, with dark shades; a broad irregular white mark, and a tuft or button, on the center of each. Head and thorax white clouded. Lower wings pale brown.

This singular Moth is very rarely met with; it has been taken in *Coombe-wood*, *Surry*, and in *Kent*, but even in those places it is very uncommon.

It is distinguished by the unusual form of the white markings on the upper wings, and particularly by the tuft or button which is situated in an upright position near the center of each; those tufts appear only slightly feathered on the upper parts to the naked eye, but when one of them is examined with a microscope, or even common magnifier, it presents the appearance of a bundle of fibres, inclosed within a thin membrane; narrow at the base, increasing in bulk near the middle,

and

and expanding at the summit into a number of shoots, in the form of a crest: several other tufts are dispersed near the extremities of the upper wings, but they are not conspicuous to the naked eye.

I have seen an Insect which corresponds in every respect with this specimen, except that it had a line of a dull ochre colour along the posterior margins of the upper wings; but I suspect it to be either a variety, or perhaps only the difference of sex.

Linnæus has not described this insect, neither can we discover any description of it in the writings of *Fabricius*; and I have no doubt of its being a nondescript species.

The singular crested tufts, with the white markings on the upper wings, furnish such an ample specific distinction, that we have named it *Cristalana*.

Found early in the month of *August*.

Fig. I. represents the natural size. Fig. II. its magnified appearance.

FIG. III. and FIG. IV.

PHALÆNA RADIATELLA.

LEPIDOPTERA.

PHALÆNA.

TINEA.

SPECIFIC CHARACTER.

First wings, buff, with shades of orange; striped or rayed with a very dark purple from the base to the apex of each; a white stripe near to, and parallel with the posterior margin, and two spots of the same colour near the center of each wing. Second wings lead colour, deeply fringed.

This

This insect also appears to be a nondescript species; we have called it *Radiatella*, or rayed, from the form of the dark stripes which rise from the base, and spread in the form of rays to the apices of the upper wings. It is very liable to change after death, and particularly the buff colour, which appears very bright when the insect is fresh, but is sometimes so altered in appearance when placed in the cabinet, that an intermixture of that colour can be scarcely distinguished between the rays of purple; we mention this circumstance, as very few small lepidopterous insects are subject to such alteration.

It is found about the same time as the *Phalæna Cristalana*, and I believe is equally scarce.

Fig. III. represents the natural size. Fig. IV. its magnified appearance.

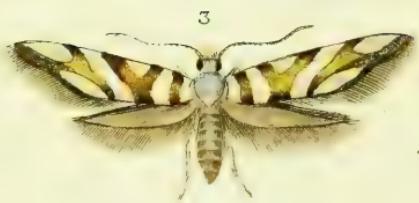


PLATE LXV.

FIG. I.

PHALÆNA INTERROGATIONANA.

LEPIDOPTERA,

GENERIC CHARACTER.

Antennæ taper from the base. Wings in general contracted when at rest. Fly by night.

TORTRIX.

SPECIFIC CHARACTER.

Superior wings dark red-brown with an undulated line resembling the note of interrogation on each. Inferior wings and body pale brown.

Is very rare, and has only been hitherto taken in the wilds of Kent, and some other distant parts of the country; our specimen was taken in August.

An insect so singularly marked, cannot readily be confounded with any other species, as we do not possess one which bears much resemblance to it; the most striking particular for a specific distinction are the two waved lines of white on the superior wings, which being contrasted with the brown colour, gives it a very unusual appearance.

It is an undescribed insect, and we have called it *Phalæna Interrogationana*, as the white undulated mark, if viewed sideways, resembles a note of interrogation.

FIG. II. III.

PHALÆNA SEMI-ARGENTELLA.

LEPIDOPTERA.

TINEA.

SPECIFIC CHARACTER.

Superior wings gold, with stripes of silver, inferior wings grey-brown.

Fig. II. natural size. Fig. III. magnified appearance.

Pha. Semi-argentella is without exception one of the most brilliant little moths we have; the natural size is scarcely sufficient to display its superior elegance, but when examined by the microscope, imagination cannot paint a more resplendent object, for we instantly discover a most wonderful combination of all the varied shades of molten silver and burnished gold; its superior wings are entirely adorned with plates which exhibit in one view the appearance of those costly metals, but vary with every direction of light; that which appears gold in one point of sight becoming red, or bright orange, while the shades which were before of a dark brown, assumes the resplendence of burnished gold; the thorax glitters with the same splendor; the head, antennæ, and even the legs, partake also of this rich colouring in some changes of light; the inferior wings are of a very delicate texture, grey colour, changeable, and though comparatively small, are surrounded by a deep fringe, which gives them the appearance of proportion.

We are unacquainted with the works of any author that contain a figure of this insect, or we might perhaps be enabled to determine

whether

whether it is not the *Pha. T. Seppella** of Fabricius; the descriptions nearly correspond, but we are unwilling, without other proof, to give it that specific name.

Until very lately it was considered as an exceedingly rare insect, but several specimens were taken at Highgate last summer.

FIG. IV.

PHALÆNA CURTISSELLA.

LEPIDOPTERA.

TINEA.

SPECIFIC CHARACTER.

Superior wings, and thorax white, speckled, and spotted with brown. Inferior wings and body pale brown.

This insect is very uncommon, and though it has never been either figured or described before, it has been arranged in those cabinets which possessed the specimen, under the specific name *Curtisella*, after Mr. CURTIS, author of the *Flora Londinensis*, &c.

The name was originally inserted by Mr. MARSHAM, in his manuscripts, and was intended as a compliment to the abilities of that scientific gentleman; it has not hitherto appeared in public, but we can feel no reluctance to adopt the same name.

* *Alis auratis, strigis duabus argenteis. Gen. Inf. Mant. 296.*



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PLATE XX.

FIG. I.

PHALÆNA CHRISTIERNANA.

LEPIDOPTERA.

GENERIC CHARACTER.

Tortrix.

Antennæ taper from the base : wings in general deflected when at rest. Fly by night.

SPECIFIC CHARACTER.

Anterior wings yellowish, reticulated with sanguineous veins.

PHALÆNA CHRISTIERNANA : alis primoribus flavissimis : venis sanguineis reticulatis. *Fabr. Sp. Ins. 2. p. 281. n. 33.*

We are not at present acquainted with the transformation of this very beautiful little insect ; in the Fly state it is known as an uncommon species, and in Britain is extremely rare.

Our specimen was taken at Faversham. The species is sometimes met with in the woods of Darent in Kent in the month of June or July.

FIG. II.

HIMANTOPUS LUDIO.

GENERIC CHARACTER.

A pellucid, invisible, ciliated worm.

SPECIFIC CHARACTER.

Curled *Himantopus*; the upper part hairy, the tail extended upwards.

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PLATE LVII.

FIG. I.

PHALÆNA LAMDELLA.

TINEA.

SPECIFIC CHARACTER.

Superior Wings bright yellow brown, with a triangular dark spot, extended obliquely from the inferior margin, to the center of the Wing, and terminated by a minute detached spot of the same colour.

A non-descript, and has hitherto only been taken on Epping-forest: the brood was discovered in a furze-bush, by Mr. Bentley, an eminent Collector of Insects, in July 1789; the Cabinets of several Naturalists have been supplied from the parcel then taken, as the Species has rarely been observed since.

We prefer the name *Lamella*, as the form of the Greek *Lamda* (λ) is well characterized, on the superior Wings.

FIG. II.

PHALÆNA AURANA.

PYRALIS*.

SPECIFIC CHARACTER.

Superior Wings brown, with two orange spots on each; inferior Wings brown.

Syst. Ent. 653. 48.—*Fabri. Spec. Inf.* 11. 286. 66.

* *Fab. Gen. Inf.*

AN

An elegant Species of the minuter kinds of Lepidopterous Insects: it derives its name from the spots of bright orange, or gold colour, which are on the superior wings: is very rare: our specimen was taken in Kent, late in July; it appears peculiar to that county only, or is certainly very unfrequently, if ever, found elsewhere.

Larva unknown.

F I G. III.

P H A L A E N A A P I C E L L A.

T I N E A.

S P E C I F I C C H A R A C T E R.

Grey. A circular spot of gold, or orange colour, at the apex of each superior Wing.

Non-descript, and is also very rare. Our specimen was procured by beating a White thorn-bush, on Epping-forest, early in May.

The orange spot on the ends of the upper wings afford the most striking distinction for a Specific Character; we therefore denominate it Apicella.

WISHING to comprise such information as may recommend our Work, to a general Class of Readers, we are absolutely compelled to deviate from that uniform path which we at first intended to pursue; by introducing the figures of some Moths before we can procure their larva; we promise this will rarely occur, except with Insects whose larva are unknown; and the Author will spare no expence, or trouble, to attain even those: but, were he to refuse a place to the many valuable specimens recently discovered, it would be very displeasing to the greater part of his Subscribers; therefore, as an invariable observance of such intention, promises only to exclude the most rare of our Insects, we cannot always indulge it: on this plan, in the first Volume we could neither have represented the Phal. *Batis*, *Peach Blifom*, as the larva has only once been found; or the Phal. *Christernana*, whose larva is unknown*: These are Insects which few Cabinets in England possess; hence the figures must be very acceptable, and their rarity a sufficient apology for their premature introduction.

* The Caterpillars of a very small portion of minute Moths are known; and many Species in the adult state are so very rare, as to have escaped the attention of the most accurate Entymologists. Of the number which are ascertained as natives, very few are hitherto figured, or even described.





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PLATE LVIII.

FIG. I. I.

PHALÆNA PRUNIELLA.

LEPIDOPTERA.

GENERIC CHARACTER.

PHALÆNA.

Antennæ taper from the base. Wings, in general, contracted when at rest. Fly by night.

TINIA.

SPECIFIC CHARACTER.

Superior wings brown, inclining to purple; from the interior margin is extended a broad white dash along the posterior margin, nearly two thirds of its length; but is interrupted near the extremity by a square spot of dark brown. Inferior wings grey. Head and thorax white. Abdomen grey.

We have copied the name *Pruniella*, from that celebrated work of Clerk, said to be executed under the immediate inspection of *Linnæus* himself: He has figured it in the 11th Plate, Fig. 4. But the great scarcity of that work, there not being twelve copies in this country, can have contributed in a very small measure to its being generally known; which indeed is the fact, as it does not appear any writer since that time has figured, or even described it. Some were, perhaps, ignorant of its having been figured in Clerk's Plates, which however, could not have been the case with *Linnæus*; but we cannot find that he has described it, or referred to Clerk's figure in any part of his works;

though a copy of that book came over with the Linnæan collection, into the hands of Dr. Smith; nor can we trace any description of this moth in the writings of Fabricius; he also has not quoted the figure: We may hence conclude that although the insect is frequent in the months of June and July, it is little known, except with those who possess collections; and even many of that description are perhaps unacquainted with the circumstance of its having been named by Clerk, and probably by no other author.

Taken at Highgate.

F I G. II.

PHALÆNA MARGINELLA.

LEPIDOPTERA.

GENERIC CHARACTER.

PHALÆNA.

TINEA.

SPECIFIC CHARACTER.

First wings bright, pale brown, with a broad white margin. Second wings white.

Our present species was unknown to Linnæus; but according to his definition of genera, is one of the *tineæ*; it will be necessary, however, to distinguish it from the *tinea marginella* of Fabricius, which is a native of Germany, and altogether different; that writer, it is well known, divided many of the genera of Linnæus, and from their materials constituted an infinitely greater number; it was by such divisions he separated the *tineæ*, into the genera, *tineæ* and *alu-*

titæ, removing the *alucitæ** of Linnæus under the title of *Pterophorus*.

He therefore uses the specific name *marginella* to his *tinea* and *alucitæ*. Our specimen is described by him, under the name *Alucita marginella*. It is found on the juniper in May.

Taken at Dartford.

F I G. III.

PHALÆNA PAVONANA.

LEPIDOPTERA.

GENERIC CHARACTER.

PHALÆNA.

TORTRIX.

SPECIFIC CHARACTER.

Superior wings clouded with black and buff-coloured markings, and a very minute representation of a peacock's feather at the apex. A dorsal spot of bright brown, surrounded with a deep black mark. Inferior wings grey brown, with the eye of the peacock's feather at the apex.

This singular Tortrix, which abounds with beautiful markings, is particularly distinguished by the elegantly little mark at the apex of the upper wings, which appears like the feather of a peacock's tail:

* The insects distinguished by this title are known by the trivial names *Plumes*, or *Fans*; their wings being entirely formed of feathers connected only near the base in the manner of a fan.

the ferruginous dorsal spot, surrounded with a thick black mark, although pretty, is by no means peculiar to this species, being common to several other minute moths: the clouded markings of black and buff-colour, interspersed with silver, give this little animal a beautiful appearance, particularly under the microscope. The under wings have a similar appearance of a peacock's feather, but more obsolete at the apex.

We believe this species has never been described before, and very rarely taken. Our specimen was found in Sussex.—August.



PLATE LIX.

FIG. I.

PHALÆNA PAVONANA

MAGNIFIED.

FIG. II.

PHALÆNA PRUNIELLA

MAGNIFIED.

We cannot select more pleasing objects for microscopical investigation, than those two minute moths, especially the first; the markings appear rather confused without the assistance of glasses, but a lens of a very small power completely develops it of this imaginary obscurity, and displays an elegance sufficient to recommend it to our attention; but independent of such consideration, it will, it is presumed, be considered as a material advantage to the description annexed, to accompany the figure of the natural size with a microscopical representation; not to enforce that such addition is indispensably necessary, but when moths like the present offer, whose marks, though beautiful, appear confused, it will certainly much assist to its necessary information; as well as in future to determine the species itself.



PLATE XC.

PHÆLÆNA LŒFLINGIANA.

LEPIDOPTERA.

GENERIC CHARACTER.

Antennæ taper from the base. Wings in general contrasted when at rest. Fly by night.

TORTRIX.

SPECIFIC CHARACTER.

First wings yellowish, or buff colour, marked with transverse short streaks of red, or brick colour, also two irregular marks of the same colour, resembling XX , on the anterior margin. Under wings and body lead colour.

P. Alis anticis flavis luteo reticulatis dupli xx notatis.

Syft. Ent. 652. 42.

Linn. Syft. Nat. 2. 878. 305.—Fn. Sv. 1323.—

Clerk. Phal. Tab. 10. Fig. 6.

This little Moth has great affinity with the *Phal. Forskabiana* of Linnaeus, the wings are indeed more angulated, but the form of the XX on the upper wings are nearly the same, and in the general colours both of the upper and under wings they perfectly agree.

Phal. Lœflingiana is found in the greatest abundance on the Oak, in the month of April and May, in the Caterpillar state, and in July every Tree that will afford them a moist retreat during the heat of the day, conceals numbers in the winged state; morning and evening they are on the wing, they come forth at day break, sport about the bushes till after sun-rise, and then retire among the thickest Oak boughs; a little before sun-set they come forth again, but conceal themselves as before about twilight.

The Caterpillars are of a fine green colour, beset with black specks, the head is shining black, a collar of the same colour passes round the first joint, or annulation of the body next the head, but a narrow belt of white passing between, separates the black of the head from the shoulders. It is a brisk creature, and the thread which it spins is of a very strong texture.

It passes to the Chrysalis state in the leaf of the Oak, as shewn in the plate.



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PLATE CVI.

FIG. I.

FIG. V?

PHALENA EMARGANA.

NOTCH WING.

LEPIDOPTERA.

GENERIC CHARACTER.

Antennæ taper from the base. Wings in general contracted when at rest. Fly by night.

TORTRIX, *Linnæus.*PYRALIS, *Fabricius.*

SPECIFIC CHARACTER.

First wings brown, with reticulated dark lines; the anterior margin deeply excavated in the form of a curve. Posterior wings light brown.

P. *Emargana*. Alis subcaudatis flavis fusco reticulatis fasciaque lata fusca, margine crassiori late emarginato. *Syst. Ent. Fab.* 651. 37.

The excavations of the superior wings of this Insect contribute such an air of novelty to its general appearance, that it might rather be considered as the effect of chance or design, on a single Insect, if we did not observe that character prevail through every specimen; we find two kinds of them in several cabinets in London, and we are in possession of a third that differs from either,

P

By

By most practical Entomologists they have been considered as distinct species, and they may be such; but as we are unwilling to create confusion by extending the number of species, we prefer admitting them as varieties under the Fabrician name *Emargana*.—We are more readily inclined to adopt this measure, as we have always found them at the same time of the year, in the same parts of the woods, and generally sporting together, which is not commonly observed of Insects that are not either varieties or differ only in sex.

They are rarely met with; our specimens were taken in June at Dartford.—They have been taken together at Caen-Wood, Hampstead.

They have not been described by Linnæus; but were known among Collectors by the (now obsolete) name *Excavana*.

At Fig. 5. is shewn one of the varieties; the third is much yellower but marked with similar reticulated strokes, and exactly corresponds in size and form with this figure.

F I G. II.

P H A L Æ N A Z O Æ G A N A.

LEPIDOPTERA.

TORTRIX.

S P E C I F I C C H A R A C T E R.

First wings yellow, with a brown spot on the middle; exterior of each dark brown, with a large splash of yellow in the center. Second wings dark brown.

P HAL. *Zoëgana* alis flavis punto medio farrugineo, postice ferrugineis macula flava, *Linn. Syst. Nat.* 2. 876. 289.

P. P HAL.

♂. *PHAL. hamata* alis superioribus flavis puncto lituraque postica
hamata ferrugineis. *Linn. Syst. Nat.* 2. 876. 290.
Fn. Sv. 1309.
Clerk. Phal. tab. 4. *fig.* 4.
— *tab.* 4. *fig.* 5. 6.
Fabri. Spec. Inf. 2. 280. 25.

Taken on Epping Forest in June.—We have rarely met with this
Insect.

FIG. III.

PHALÆNA QUERCANA.

LEPIDOPTERA.

TORTRIX.

SPECIFIC CHARACTER.

Antennæ very long. First wings pale pink, margined with yellow: yellow spots on the center. Inferior wings pale; underside tinctured with pink.

PHAL. Quercana alis anticis flavis, maculis daubus costalibus sulphureis. *Fab. Syst. Ent.* 652. 39.

PHALÆNA fagana *Wien.* *Vers.* 28. 7. *tab.* 1. a. b.
— *tab.* 1. b. b.

The low oaks, and particularly such as are encircled with ivy, generally afford a shelter to numbers of this pretty Insect during the heat of the day; they are seldom found in the thickest of the wood, they seem to prefer the thick hedges by the road sides.

Is found in the months of May, June, and July.

FIG. IV.

PHALÆNA PANZERELLA.

LEPIDOPTERA.

TINEA.

SPECIFIC CHARACTER.

Long, narrow. Anterior wings pale clay colour, with a dark streak down the middle, and a few minute spots of the same colour near the apex. Posterior wings almost transparent, bluish, fringe very deep, of a clay colour.

This elegant Insect was found the latter end of autumn, 1794, among some high grass and water plants in the vicinity of Hampstead, and is now in the possession of the author.

It has certainly never been described or figured before; nor is it in the cabinet of any Entomologist within the circle of our friends; if we except a very distinct variety which is in the cabinet of Mr. Honey, *Union-Street, Borough.*

We have named it Panzerella in honour of the German Entomologist DR. GEORGE WOLFGANG FRANZ PANZER, Author of *Fauna Insectorum Germanicæ initia, &c.*

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PLATE CLIII.

FIG. I.

PHALÆNA EUPHORBIATA.

SMALLEST QUAKER MOTH.

LEPIDOPTERA.

GENERIC CHARACTER.

Antennæ taper from the base. Wings in general deflexed when at rest. Fly by night.

GEO M A T R A.

SPECIFIC CHARACTER

AND

SYNONYMS.

Entirely brownish grey without spots.

PHALÆNA EUPHORBIATA: *feticornis* *alis* *fusco* *cinereis* *immaculatis*. *Fab. Mantf.* 2. p. 209. n. 202. *Ent. Syst.* T. 3 p. 2. 197, 246.

DE VILLERS *Ent. Lin.* T. 4 p. 509. *De l'Euphorbe.*

Hubners *Beitr. 1. B. 2. Th.* p. 15. *Ph. G. unicolorata.* Tab. 3. fig. L. 2. B. 4. Th. p. 112.

Langs *Berz.* p. 189. n. 1361. 62. *Ph. G. unicolorata.* *Der Klein-grave Nachtfalter.*

Berlin. *Magaz.* 4. Th. p. 524. n. 44. *Ph. fascata.* *Der Sperling.*

Der *Wolfsmilchspanner.* *Klem. Inf. Suppl.* T. 2 Tab. 24. fig. 1. *Wien. Verz.* 116. 9.

Hybn. Beytr. 2. tab. 3. fig. L.

This

This is not an uncommon Moth in some places, yet we find no figure of it in any work on British Insects. In the work of Kleemann, quoted in the Synonyms, a figure of it is given without the Larva; from this we may safely infer it is seldom found in that state, or that indefatigable writer would certainly have added it to his Plate.

It is supposed to feed on some plant of the Euphorbia genus, and hence the specific names *fusca* and *unicolorata* have been abandoned.

The Moth was found late in May.

FIG.



FIG. II, III, IV.

PHALÆNA UDDMANNIANA.

CHESNUT SPOT MOTH.

LEPIDOPTERA.

PHALÆNA.

*Tortrix. Lin.**Pyralis. Fab.*

SPECIFIC CHARACTER

AND

SYNONYMS.

Wings greyish brown. An angular shaped chefnut coloured spot on the posterior margin of the first pair.

TORTRIX UDDMANNIANA: alis cinereis: macula brunnea communi transversa. *Linn. Syst. Nat. 2. 880. 320.—Fn. Sv. 1332.*

Pyralis Uddmanniana. Fab. Syst. Inf. 2. p. 279. n. 22.—Mant. Inf. 2. p. 228. n. 35.

Wiener Verz. p. 130. Fam. D. grave Blattwichtler (Ph. Tortrices cinereæ) &c. *l'Uddmann. de VILLERS ent.*

Der himbeer unkler. *Kleman. Inf. Suppl. Tab. 24.*

De PRUNNER larv. d'Eur. p. 35. *Tortrix Uddmanniana.*

This is much rarer than the preceding species, and is also a far more beautiful Insect. We have never found it except about the

D

hazel

hazel nut trees in Coombe Wood, Surry, though it may, no doubt, be met with wherever these trees are found in abundance. Is found in Germany.

The Caterpillar changed to Chrysalis in May. Moth appeared in July.

FIG. V.

PHALÆNA CARNELLA.

ROSE COLOURED VANEAR.

LEPIDOPTERA.

PHALÆNA.

Tinea.

SPECIFIC CHARACTER

AND

SYNONYMS.

Upper Wings rose colour, anterior margin whitish, posterior yellowish. Lower Wings pale.

TINEA CARNELLA: alis anticis flavis: lateribus sanguineis. *Lin.*

Syft. Nat. 2. 887. 353.—Fab. Spec. Inf. 2. 293. 21.

Ent. Syft. 3: Pars. 2. 296. 41.

Wien: verz. 138. 13:

Schæff. Icon: tab. 147: 2: 3:

Sulz: Hist. Inf: tab. 23. fig. 12:

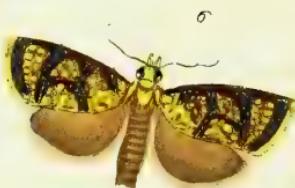
Purple Vanear? *Harris: Inf.*

The Larva of this rare and elegant Insect is wholly unknown to Collectors of British Insect. The Moths were formerly taken at the Chalk-pits, near Charlton, in Kent, but either the brood has been destroyed, or the seasons so unfavourable, that few, if any, have been seen for several years. The Moth comes forth in May, and, like other species of the same tribe, fly very low, and always settle on the blades of grass, with their Wings folded, so that Collectors can readily distinguish them from other Moths.





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P L A T E C L V I I .

P H A L A E N A B E R G M A N N I A N A .

L E P I D O P T E R A .

G E N E R I C C H A R A C T E R .

Antennæ taper from the base. Wings in general deflexed when at rest. Fly by night.

Tortrix Linn. *Pyralis Fab.*

S P E C I F I C C H A R A C T E R

A N D

S Y N O N Y M S .

First wings yellow, varied with orange colour. Four brown marks across each wing, with spots and streaks of silver down them. Inferior wings grey.

P H A L A E N A B E R G M A N N I A N A . *Linn. Syst. Nat. 2. 878. 307.* *Fn. Sv. 1314.*

P H A L A E N A B E R G M A N N I A N A : alis anticis luteis flavo punctatis, fasciis quatuor argenteis, tertia bifida. *Fab. Syst. Ent. 652. 43.* *Spec. In. 2. 285. 59.*

Phalena antennis filiformibus, alis luteis nitidis, strigis quatuor argenteis.

Phalène à antennes filiformes à trompe à ailes larges d'un jaune orange luisant avec quatre rayes transverses d'un brun argenté. *Phalène chappe jaune à rayes argentées. Degeer Inf. 2. p. 1. p. 469. n. 4.—Inf. 2. 1. 346. 4.*

Phal. Pallium aurantium. Spirilinguis, antennis filiformibus. alis rhombeis aurantiis nitidis strigis 4 fusco argenteis. *RETZ. Degeer, p. 52. n. 147.*

Phal.

Phal. Bergmanniana. Alæ anticæ flavæ nodulis binis, fasciisque (4) argenteis margine fusco-ferrugineo. SCOPOLI *Ent. Carn.* p. 232. n. 584. *fig. 584.*

Tortr. eur. Bergmanniana. Jungs alphab. Berf. 2. Th. p. 75.

Tortrix Bergmanniana. la Bergmann. de VILLERS *ent. Lin.* T. 2. p. 396. n. 671.

Der Bergmannsche unkler. Kleeman *Inf.* Nr. 45. 1794.

Metallische Blattwichtler (*Phal. Tortrices Metallicæ*) n. 5 Tortrix. Bergmanniana *Wiener. Verz.* p. 126. *Fam. B.*

Bergmannswichtler. Brahms *Hanbd.* 2. Th. 1. *Ubth.* p. 237. n. 132.

Der Bergmannische Nachtfalter. Langs *Verz.* p. 203. n. 1379, &c.

Linnæus gave this little Moth the specific name *Bergmanniana*, in honour of Prof. Bergmann, a naturalist of distinguished eminence. It is a very pretty Insect; but, when magnified, its appearance is truly superb, the ground colour which is bright yellow, shewing the orange markings to great advantage, and the metallic splendour of the burnished silver appearing like raised work above the stripes or bands of dark brown that cross the upper wings.

We have found this Moth at Highgate. The Caterpillars are yellow, with a streak of green down the back; but the green disappears before the last skin, in which they are of a pale yellow, without any marks whatever. They feed on white thorn.

Fig. 1, 2. The Caterpillars. Fig. 3. Chrysalis. Fig. 4 The same magnified. Fig. 5. Moth. Natural size. Fig. 6. The same magnified.

FIG. VII.

PHALÆNA SQUAMANA.

GREEN TUFTED, OR BUTTON MOTH.

LEPIDOPTERA.

PHALÆNA.

Tortrix *Lin.*

SPECIFIC CHARACTER

AND

SYNONYMS.

Upper wings green, tufted all over. Inferior wings pale brown.

PHAL. PYRALIS SQUAMANA : alis virescentibus scabris. *Fab. Syst. Ent.* 651. 36. *Spec. Inf.* 2. 284. 50.

This is exceedingly rare. The upper wings are very curious, being entirely covered with tufts of feathers, of various sizes, some brownish, others inclining to white, but most of them are green, which is the ground colour of the wings. Of its Larva we are entirely ignorant; nor can we derive any assistance in that respect from entomological writers, as *Fabricius* only has described the Moth. He says it is a native of England, and preserved in the cabinet of Mr. *Monson*.

Taken in June,



PLATE CCCLV.

FIG. I.

PHALÆNA FRANCILLANA.

GENERIC CHARACTER.

Antennæ taper from the base: wings in general deflected when at rest. Fly by night.

SPECIFIC CHARACTER.

Pale yellow, with two oblique brown streaks on the superior wings.

PHALÆNA FRANCILLANA: alis pallide flavis: strigis duabus brunneis. *Fab. Ent. Syst. T. 3. p. 2. p. 264. sp. 94.*

Fabricius, when in England, named this elegant little nondescript Francillana, in compliment to Mr. Francillon, whose exquisite collection of Insects afforded him such ample assistance in completing his *Species Insectorum* and *Entomologia Systematica*; and we are happy

in the opportunity to perpetuate the name, as a small acknowledgment for the confidential freedom with which its worthy owner has at all times permitted us to describe and copy whatever that cabinet might happen to possess exclusively.—The specimen is in the Collection of Mr. Francillon.

FIG. II.

PHALÆNA LITTERANA.

SPECIFIC CHARACTER.

Wings rhombiform: first pair green, with little elevated tufts and black characters.

PHALÆNA LITTERANA: alis rhombeis: anticis viridibus: characteribus atris. *Linn. Syst. Nat. 2. 876. 288.—Fab. Ent. Syst. T. 3. p. 2. sp. 271.*

Not unlike *Phalæna Squamana*, figured in a former part of this Work, except in the black characteristic marks on the superior wings.—This is a very rare and beautiful little creature.

FIG.

FIG. III.

PHALÆNA CYNOSBANA.

SPECIFIC CHARACTER.

Anterior wings dark brown, white at the tips.

PHALÆNA CYNOSBANA: alis anticis fuscis apice albis. *Fab.*

PYRALIS CYNOSBANA. *Fab. Ent. Syst. 3. b. 283. 167.*

Tinea Cynosbatella. *Linn. Syst. Nat. 887. 368.—Fn. Sv. 1397.*

Linnæus, and after him Fabricius, refers to the works of De Geer and Merian for figures of this Insect, neither of which are in our opinion sufficient authorities; that of De Geer is in particular miserable, and so far from leading to ascertain the species, may mislead us as to the identity of its genera. Some years since, this Insect was deemed a nondescript by English collectors, and named in compliment to a much respected *Aurelian Beckwithiana*; but agreeing as it does in all respects with the Linnæan *Cynosbana*, we must unavoidably reject that name, though generally adopted, and assign it that by which Linnæus had previously distinguished it.

It is very common, and according to Linnæus breeds in the buds of roses.

FIG. IV.

PHALÆNA EVONYMELLA.

WHITE ERMINE MOTH.

SPECIFIC CHARACTER.

Wings white, with about fifty black points.

Tinea, with white upper wings and black points; inferior wings brown.—*Tinea alis superioribus albis: punctis nigris, inferioribus fuscis* *Geoff. Inf.* 2. 183. 4.

PHALÆNA EVONYMELLA: *alis anticis niveis: punctis 50 nigris.*

Linn. Syst. Nat. 2. 885. 350.

Fn. Sv. 1363.

Fab. Ent. Syst. T. 3, *p.* 2. 289. 12.

Linnæus considered the two species of Ermine Moths, *Padella* and *Evonymella*, sufficiently characterised by the number of black spots on the superior wings. To the first he assigns twenty, and to the latter fifty on each wing.

Those who have attended particularly to those species are aware, that the number of spots are by no means constant, and may have frequently observed even more spots on one wing than the other in the same individual, as occurs in the specimen we have figured. This has occasioned some confusion between the two species, and we expressed some doubts respecting them in the description of one of the earliest

earliest plates in this work. Since that time we have had more opportunities of ascertaining the two kinds, and have no hesitation in admitting them as two species. Not that the variation in the number of spots will allow us to admit the definition of Linnæus unconditionally. It may be said that those on the *P. Padella* are about twenty, and those on the *P. Evonymella* sometimes amount to fifty or more, and the colour of the superior wings is lighter in the latter than the former.

In admitting this, the name *Evonymella* adopted in the ninth plate, must be changed to *Padella*: and the Insect before us be considered as the true *Evonymella*

FIG. V.

PHALÆNA FALCATELLA.

TRIANGLE-MARKED LIGHT HOOK-TIP.

SPECIFIC CHARACTER.

Wings hooked at the apex, whitish, decussated with obscure bars, and a large triangular brown spot on the posterior margin.

PHALÆNA FALCATELLA: alis falcatis albis: fasciis obscuris decussatis maculaque magna trigona marginis tenuoris fusca.

Very scarce and undescribed.

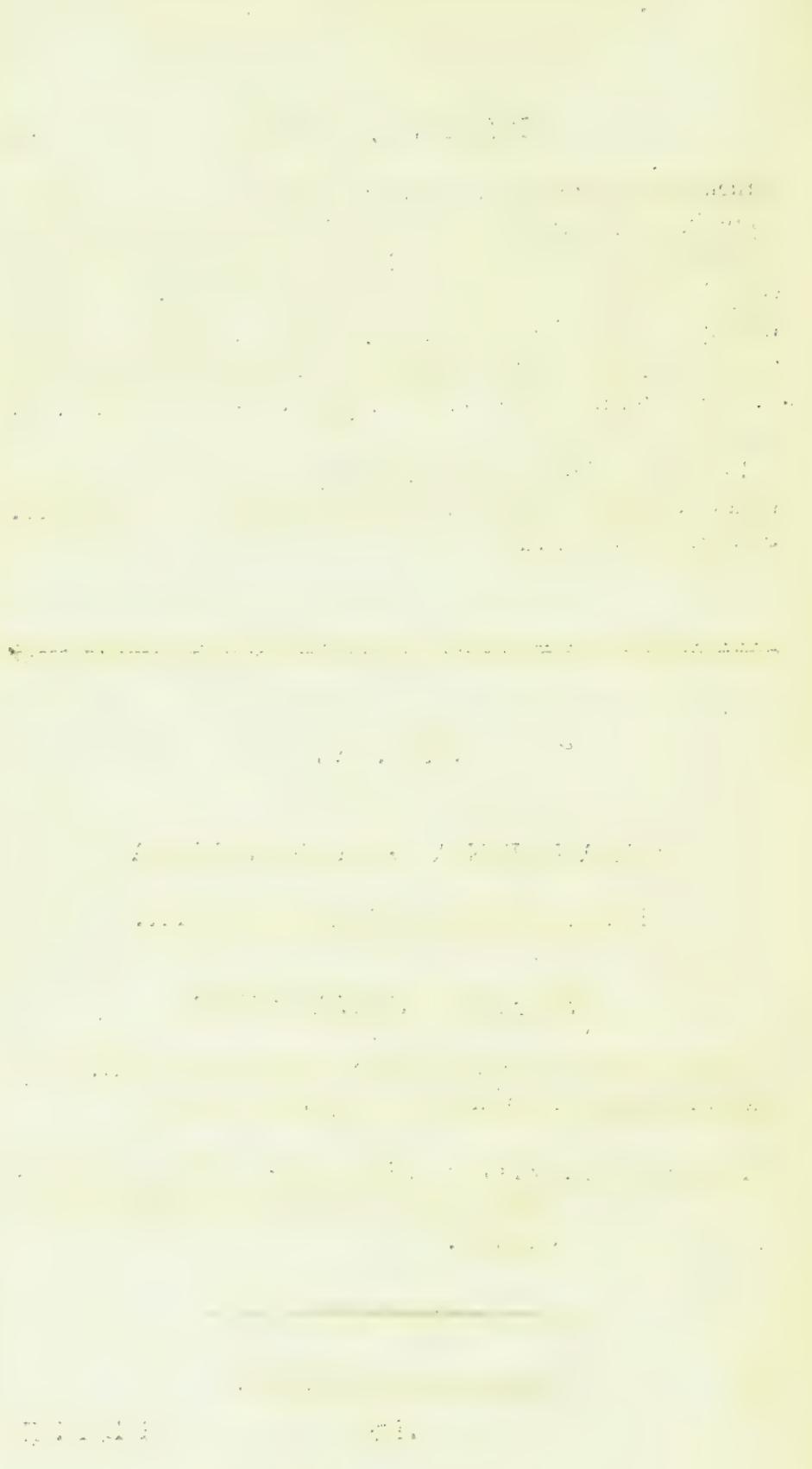




PLATE CXLIV.

PHALÆNA VIRIDANA.

SMALL GREEN OAK MOTH.

LEPIDOPTERA.

GENERIC CHARACTER.

Antennæ taper from the base. Wings, in general deflexed when at rest. Fly by night.

** *Tortrix.* *Linn.*

SPECIFIC CHARACTER

AND

SYNONYMS.

First Wings pea green. Second Wings dusky.

Phalæna viridana. *Pyralis.* *Alis rhombeis, anticis viridibus immaculatis.* — *Fabricius. Syst. Ent.* 656. 4. — *Linn.* *Syst. Nat.* 2. 875. 266.

Phalæna feticornis spirilinguis, humeris latis, antennis flavescentibus, alis dilute fuscis. — *Geof. Inf.* 2. 171. 123. *Reaum. Inf.* 2. tab. 18. fig. 6. 7. *Roef. Inf.* 1. *phal.* 4. tab. 1. *Frisch. Inf.* 3. tab. 8.

Early in July we find this species flying about the narrow paths and lanes in woods where Oaks are plenty. It is observed to shelter itself in the day time, generally among such trees as have the foliage thick

thick and the bark covered with moss, &c. and very seldom among young trees. In the Caterpillar state it lives concealed in a fine silky web, spun up on the leaves. When it is disturbed it drops by a single thread from one branch to another, the glutinous substance of the thread adhering wherever it touches, so that if it is damaged in any part the Insect is in no danger of falling, unless the last fastening breaks off. The Caterpillar changes to the pupa state early in June: the first appearance of the Moth is commonly about the end of the same month.

In England we have another small Moth (*Phalæna Chlorana*) which at first sight may be mistaken for *Phalæna Viridana*. It differs from this Insect in several respects; the under Wings are whiter, and the stripe along the anterior margin of the upper Wings incline more to a cream colour than in our present species; the Caterpillar also is very different and feeds on the Willow.

